

A NEW GENUS AND SPECIES OF NASUTITERMITINAE FROM  
SOUTH AMERICA (ISOPTERA, TERMITIDAE)Luiz Roberto Fontes<sup>1</sup>

## ABSTRACT

*Coendutermes tucum*, gen. n., sp. n., is described from three series of soldiers and workers from Iquê-Juruena, State of Mato Grosso, Brazil, and one series from Jodensavanne, Suriname. The species inhabits rain forest and its soldier is unusual in having many hollow glandular bristles scattered over the head.

*Coendutermes*, gen. n.

Type species: *Coendutermes tucum*, sp. n.

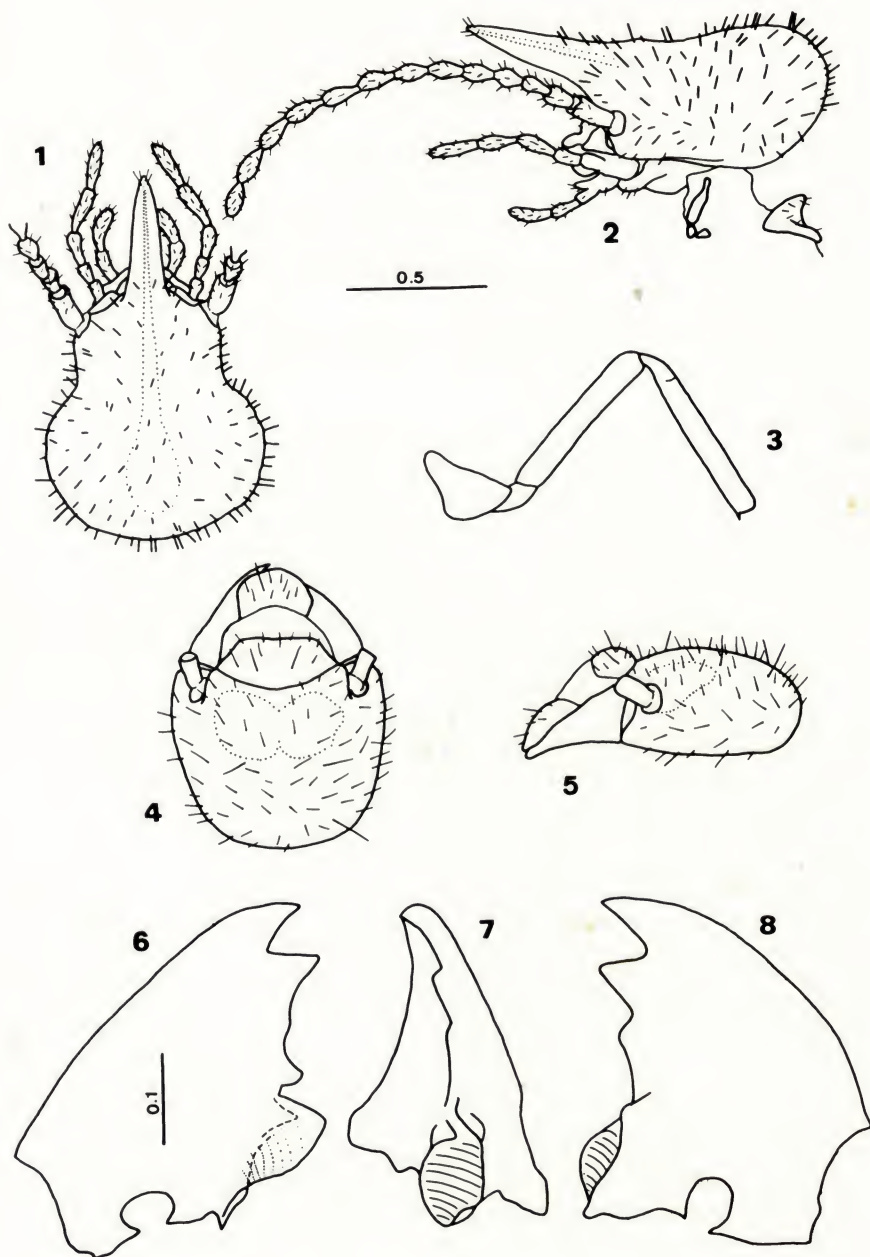
Coendu is the popular name for the Neotropical porcupine. The word came from Tupi, an Indian language which participated in the formation of the "Brazilian idiom".

Alate. Unknown.

Soldier. Monomorphic. Head capsule with many hollow glandular bristles scattered over dorsum and sides (figs. 1-2). These are large and well visible erect bristles, brownish in colour and stout, ending in a truncated tip. Non-glandular bristles are apparently absent in the head, except for the apex of the nose. Head capsule with sides parallel at anterior third, no clear constriction discernible in dorsal and lateral views behind antennal sockets; then broadly enlarged, globose, sides roughly rounded. Nose conical, slightly turned upwards; tip pointed. Postclypeus weakly oblique, visible in dorsal view. Mandibles each with a discrete hump on apex but without a developed apical point. Antenna (fig. 2) very long, extending well beyond the apex of the nose. Pronotum (fig. 2) with raised anterior part poorly developed, vertical. Legs long (fig. 3). Tibia slender; each with 2 apical spurs.

Worker. Apparently monomorphic. Abdominal sclerites pale coloured or incolor, transparent, with gut contents clearly showing through. Remainder of body sclerites whitish to yellowish. Glandular bristles absent. Head with a few long bristles and many moderately long bristles (figs. 4-5). Postclypeus moderately inflated. Width of postclypeus/length of postclypeus 2.90-3.25. Left mandible (fig. 6): index 0.47; apical tooth shorter than first + second marginal tooth; posterior margin of apical tooth slightly concave and about as long as the anterior margin of the first + second marginal tooth; angle between apical tooth and first + second marginal tooth acute; posterior cutting edge of first + second marginal tooth sinuate, separated from third marginal tooth by a broad concavity; third marginal tooth developed, posterior margin convex; molar tooth hidden beneath the molar prominence; molar prominence with more or less reduced ridges inside, broad and projecting well beyond the tip of the third marginal tooth and separated from it by a distance shorter than the width of the tooth. Right mandible (figs. 7-8): apical tooth about as developed as the first marginal tooth; posterior margin of apical tooth slightly concave and a little longer than the anterior margin of the first marginal tooth; angle between apical tooth and first marginal tooth acute; posterior margin of first marginal tooth a little longer than the anterior margin of the tooth; second marginal tooth reduced but distinct, forming an obtuse angle with the first marginal tooth, and with posterior margin slightly concave; rounded apex of the second marginal tooth as close to the tip of the first marginal tooth as to the molar plate; molar plate concave, with rounded notch in basal end in front view, apical ridge developed but projecting scarcely from the surface, and remaining 10-11 ridges reduced but clearly visible. Legs long. Tibia slender, each with 2 apical spurs.

1. Departamento de Zoologia, Instituto de Biociências, Universidade de São Paulo, C. P. 20.520, São Paulo, SP. With financial aid from Fundação de Amparo à Pesquisa do Estado de São Paulo (proc. 82/0346-4).



Soldiers: 1, head, dorsal; 2, head, lateral; 3, left fore leg. Worker: 4, head, dorsal; 5, head, lateral; 6, left mandible; 7-8, right mandible. Based on specimens from Iquê-Juruena, Brazil. Scales in millimeters.



## Comparisons and habits

*Coendutermes* is unique by the presence of numerous large glandular bristles on the head of the soldier. Among the Neotropical nasutes, the worker mandibles approach *Coendutermes* to *Caetetermes* (Fontes, 1981: 135-136), *Rotunditermes* and *Triangularitermes* (Mathews, 1977: 176-202), all of which have soldiers with different head shapes; only the soldier of *Constrictotermes* has a more or less similar pattern of head constriction, but this seems to be better interpreted as being merely the result of convergence, since these genera are not related, as shown by the distinct patterns of worker mandibles. The affinities of *Coendutermes* to the other Nasutitermitinae remains obscure.

According to information of Dr. A.E. Mill, *Coendutermes* inhabits rain forest and semideciduous rain forest, and feeds on organically rich soil, specimens being found in foraging galleries in the soil and asinquilines inside epigeal nests of other termites.

***Coendutermes tucum*, sp. n.**

(figs. 1-8)

Tucum is the popular name for thorny palm trees, in Brazil. The word came from Tupi.

Soldier. Head capsule yellow, slightly darkened with brown. Nose orange-yellow. Glandular bristles brownish. Postclypeus, postmentum and antenna yellow. Labrum, mandibles, thoracic and abdominal sclerites, and legs, pale yellow. Chaetotaxy of head as in the figures. Pronotum with short bristles on margins, and a few ones on the surface. Mesonotum, metanotum and tergites with a row of 4 to 6 moderately long bristles inclined backwards on apex, and many very short, almost undiscernible bristles scattered over surface. Sternites with a subapical row of erect bristles about twice as long as those on tergites, and many short bristles scattered over surface, spacing a little more than their lengths and well visible. Head capsule (figs. 1-2), in dorsal view, a little longer than broad and strongly globose at posterior two thirds (see indices for proportions); in profile, dorsum of head capsule and of nose forming a concave line, with a small hump at the base of the nose. Nose as long as half length of head. Antenna (fig. 2) with 13 articles: II-VI about the same length, a little shorter than VII-XII; III the narrowest. Anterior margin of pronotum not incised in the middle, or very weakly incised. Fore tibia a little shorter than head excluding nose.

Measurements (in millimeters) of 10 soldiers from the 4 studied colonies. Length of head to tip of nose 1.20-1.30; length of head to apex of postclypeus 0.86-0.93; maximum width of head 0.73-0.76; minimum width of head 0.53; height of head at globose region and excluding postmentum 0.53-0.56; height of head at undilated region and excluding postmentum 0.40-0.46; width of pronotum 0.43; length of hind tibia 1.13.

Indices based on the measured soldiers. Length of head to tip of nose/maximum width of head 1.70; length of head to apex of postclypeus/maximum width of head 1.18-1.22; length of nose/length of head to apex of postclypeus 0.46-0.54.

Worker. Head yellowish. Thoracic sclerites and legs white to yellowish-white. Abdominal sclerites incolor, transparent. Moderately long bristles on head a little shorter than the width of the antennal articles. Pronotum with long bristles on anterior and posterior margins. Mesonotum and metanotum with long bristles on posterior margin, and some ones on the surface. Tergites with a subapical row of long erect bristles, a transverse row of long erect bristles in the middle, and very short, almost undiscernible bristles scattered over surface. Sternites with a row of very long erect bristles behind middle, and many moderately long bristles scattered over the surface and inclined backwards.

Type material. Holotype and paratypes are deposited in the Museu de Zoologia da Universidade de São Paulo; paratypes (not quoted below) from Iquê-Juruena, Brazil, are also in the collection of the British Museum (Natural History). Brazil. *Mato Grosso*:

Iquê-Juruena, 12° 00' S 59° 30' W, Ecological Station of Secretaria Especial do Meio Ambiente, 18.VI.1980, A.E. Mill (nr 302), type colony number MZSP 8378, holotype soldier, 5 paratype soldiers, 7 workers; 23.VI.1980, A.E. Mill (nr 341), nr MZSP 8379, 1 soldier and 26 workers, 23.VII.1980, A.E. Mill (nr 336), nr MZSP 8380, 2 soldiers and 10 workers. Suriname. Jodensavanne, (Suriname River, about 50 km S Paramaribo), VI.1956-VII.1957, M.A. Knoppe (nr 130), nr MZSP 8381, 22 soldiers, 10 workers, from secondary forest, in mixture with *Atlantitermes oculatissimus* (Emerson, 1925), nr MZSP 8382.

#### REFERENCES

- Fontes, L.R., 1981. *Caetetermes taquarussu*, a new genus and species of Ecuadorian nasute (Isoptera, Termitidae, Nasutitermitinae). *Revta bras. ent.* 25(2): 135-140.
- Mathews, A.G.A., 1977. *Studies on termites from the Mato Grosso State, Brazil*. Academia Brasileira de Ciências, Rio de Janeiro, 267 pp.